

transmission path containing a NEXT noise transmitted from a near-end half-duplex communication device that is on side near to the digital communication device among said plurality of half-duplex communication devices;

a far-end cross talk (FEXT) noise coefficient table, in which are stored equalizing coefficients of equalizers to correct characteristics of a transmission path containing a FEXT noise transmitted from a far-end half-duplex communication device that is on side far from the digital communication device among said plurality of half-duplex communication devices; and

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equalizers for correcting transmission path characteristics based on the equalizing coefficients in the NEXT noise coefficient table when the NEXT [FEXT] noise has been transmitted from said near-end half-duplex communication device, and on the other hand, for correcting transmission path characteristics based on the equalizing coefficients in the FEXT noise coefficient table when the FEXT noise has been transmitted from said far-end half-duplex communication device.

Claim 7. (Amended)

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A digital communication device for correcting, when receiving data, characteristics of a transmission path containing noise transmitted from a plurality of half-duplex communication devices transmitting via half-duplex transmission paths; said device comprising:

a far-end cross talk (FEXT) noise coefficient table, in which are stored equalizing coefficients of equalizers to correct characteristics of a transmission path containing a FEXT noise, and not containing a near-end cross talk (NEXT) noise, transmitted from a far-end half-duplex communication device that is on side far from the digital communication device among said plurality of half-duplex communication devices; and

equalizers for correcting transmission path characteristics based on equalizing coefficient in said FEXT noise coefficient table when a NEXT noise has been transmitted from a near-end half-duplex communication device, being one of said plurality of half-duplex communication devices, which is near to the digital communication device, and when the FEXT noise has been transmitted from said far-end half-duplex communication device.

Claim 8. (Amended)

The digital communication device according to claim 7, wherein said digital communication device is a terminal end device for transmitting after synchronizing communications between said half-duplex communication devices, and when the NEXT noise has been transmitted from said near-end half-duplex communication device on a terminal end while data is traveling upstream on said half-duplex transmission path from a terminal end to a central office end, the terminal end device corrects transmission path

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characteristics based on equalizing coefficients in said FEXT noise coefficient table applied to said equalizers, and, on the other hand, when the FEXT noise has been transmitted from said far-end half-duplex communication device on the central office end while data is traveling downstream on the half-duplex transmission path from the central office end to the terminal end, said device corrects the transmission path characteristics based on equalizing coefficients in said FEXT noise coefficient table applied to said equalizers.

Claim 11. (Amended)

A digital communication device for correcting, when receiving data, characteristics of a transmission path containing noise transmitted from a plurality of half-duplex communication devices transmitting via half-duplex transmission paths; said device comprising:

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a far-end cross talk (FEXT) noise coefficient table in which are stored equalizing coefficients of equalizers to correct characteristics of a transmission path containing FEXT noise transmitted from a far-end half-duplex communication device that is on side far from the digital communication device among said plurality of half-duplex communication devices; and

equalizers for correcting transmission path characteristics containing said FEXT noise based on equalizing coefficient in said FEXT noise coefficient table;

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wherein the device receiving data only while said FEXT noise is being transmitted.

[Please add claims 15-18 as follows:

--Claim 15. A modem device for demodulating a signal from a communication line where noises are transmitted from a plurality of half-duplex communication devices via a half-duplex transmission path, the communication devices being comprised of a near-end half-duplex communication device on near side to the modem device and a far-end half-duplex communication device on far side, the half-duplex transmission path having a near-end cross talk (NEXT) period and a far-end cross talk (FEXT) period, comprising:

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a NEXT noise coefficient table storing a plurality of equalizing coefficients for correcting transmission path characteristics for the NEXT period where a NEXT noise is transmitted from the near-end half-duplex communication device;

a far-end cross talk (FEXT) noise coefficient table storing a plurality of equalizing coefficients for correcting a transmission path characteristics for the FEXT period where a FEXT noise is transmitted from the far-end half-duplex communication device;

an equalizer which equalizes the received signal with the equalizing coefficients stored in one of the noise coefficient tables, wherein the equalizer selectively uses the equalizing coefficients depending on the period which the received signal belongs.

Claim 16. The modem device according to claim 15, wherein the equalizer is a time domain equalizer.

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Claim 17. The modem device according to claim 15, wherein the equalizer is a frequency domain equalizer.

Claim 18. The modem device according to claim 15, wherein a near-end half-duplex communication device and a far-end half-duplex communication device are connected with TCM-ISDN (Time Compression Multiplexing - Integrated Services Digital Network) and the communication line is a DSL (Digital Subscriber Line).--
